

# Postgraduate Certificate

## Introduction to Laparoscopy in Small Animals





## Postgraduate Certificate Introduction to Laparoscopy in Small Animals

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/introduction-laparoscopy-small-animals](http://www.techtitute.com/us/veterinary-medicine/postgraduate-certificate/introduction-laparoscopy-small-animals)

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# 01

# Introduction

Laparoscopy is a diagnostic and therapeutic technique in which, through small incisions, a camera is introduced inside the patient. This favors improved diagnostic and therapeutic results, as well as lower postoperative pain levels and earlier recovery.

With this complete program, taught by experts in the sector, students will specialize in laparoscopy in a rigorous and effective way thanks to its underlying e-Learning methodology.







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*This Postgraduate Certificate is the best investment you can make when choosing a refresher program to expand your existing knowledge on the Introduction to Laparoscopy in Small Animals”*

Minimally Invasive Techniques for the Diagnosis and Treatment of various diseases in small animals were first implemented in veterinary medicine 20 years ago and have had exponential growth in the last decade.

This upturn, which goes hand in hand with the progress made by human medicine in the field, is owed to several factors: technical development, equipment and instruments that offer higher quality images and are more affordable; the development of specific diagnostic and therapeutic techniques, as well as of professionals who are better trained and carry out most of their clinical activities through these minimally invasive techniques, in addition to owners who are ever more concerned about the health of their pets and demand more specialized clinical services, more accurate clinical diagnoses and treatments that are less invasive and that will result in lower pain levels and fewer hospitalizations for their pets.

This course begins by describing the history and evolution of minimally invasive techniques, to provide veterinary professionals with a perspective of the advantages of minimally invasive techniques as compared to those that are more conventional. It also includes an analysis of new perspectives and latest techniques currently being incorporated.

The equipment and instruments necessary to perform a laparoscopic approach are covered in detail in the course. The most commonly used techniques of the standard laparoscopic approach are developed, while the basic and complementary instruments necessary to perform laparoscopy are accurately described.

The teachers of this program are at the forefront of the latest diagnostic techniques and treatment of diseases in small animals. Thanks to their specialized training, they have developed a useful and practical program that is adapted to the current reality, a reality that is becoming more and more demanding and specialized.

As it is an online Postgraduate Certificate course, students are not restricted by set timetables, nor do they need to physically move to another location. All of the content can be accessed at any time of the day, so you can balance your working or personal life with your academic life.

This **Postgraduate Certificate in Introduction to Laparoscopy in Small Animals** contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- ♦ Case studies presented by experts in Introduction to Laparoscopy in Small Animals
- ♦ The graphic, schematic, and practical contents with which they are created provide scientific and practical information on the disciplines, essential for professional development
- ♦ New developments in Introduction to Laparoscopy in Small Animals
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Special emphasis on innovative methodologies in Introduction to Laparoscopy in Small Animals
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*This program includes exceptional teaching material, providing you with a contextual approach that will facilitate your learning”*

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*This 100% online program will allow you to combine your studies with your professional work, while increasing your knowledge in this field”*

The teaching staff includes professionals from the field of Introduction to Laparoscopy in Small Animals, who bring their experience to this training program, as well as renowned specialists from leading communities and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersion training programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this, the professional will have the help of an innovative interactive video system designed by recognized experts in Veterinary Surgery.

*Don't miss the opportunity to complete this course in Introduction to Laparoscopy in Small Animals with us. It's the perfect opportunity to advance your career.*

*This training is the best option you can find to specialize in Introduction to Laparoscopy in Small Animals and make more accurate diagnoses.*



# 02 Objectives

The program in Introduction to Laparoscopy in Small Animals is designed to facilitate the performance of the veterinary professional by providing the latest advances and most innovative procedures in the field.





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*It is the best option to learn about  
the latest advances in Small Animal  
Introduction to Laparoscopy”*



## General Objectives

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- ♦ Analyze the history, evolution and new perspectives of minimally invasive techniques
- ♦ Detail basic and accessory equipment and instruments used in laparoscopies with small animals
- ♦ Compile a list of the techniques needed to perform laparoscopic surgery
- ♦ Develop a training program for laparoscopic surgery
- ♦ Analyze the importance of ergonomics in laparoscopic surgery

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*A path to achieve training and professional growth that will propel you towards a greater level of competitiveness in the employment market”*





## Specific Objectives

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- ◆ Analyze the history and evolution of minimally invasive surgical techniques
- ◆ Establish the basic equipment and instruments needed to perform a laparoscopy
- ◆ Identify complementary material used to perform laparoscopies, such as electro-surgical units
- ◆ Develop a training program to gain the skills needed to perform laparoscopy surgery
- ◆ Evaluate the different techniques used in the laparoscopic approach to surgery
- ◆ Identify the different complications that could arise with the laparoscopic technique
- ◆ Analyze new perspectives in laparoscopy surgery, such as single incision laparoscopy and NOTES



03

# Course Management

The program's teaching staff includes leading experts in Laparoscopy in Small Animals, who contribute to this training program with their vast work experience. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.







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*Leading professionals in the field have come together to teach you the latest advances in Laparoscopy for Small Animals"*

## Management



### Dr. Ortiz Díez, Gustavo

- ♦ Head of Small Animal Unit at Complutense Clinical Veterinary Hospital
- ♦ PhD and Undergraduate Degree in Veterinary Medicine from the UCM
- ♦ Master's Degree in Research Methodology in Health Sciences from the UAB
- ♦ Specialist in Traumatology and Orthopedic Surgery in Companion Animals by the UCM. Degree in Small Animal Cardiology from the UCM
- ♦ Member of the scientific committee and current president of GECIRA (AVEPA's Soft Tissue Surgery Specialty Group)
- ♦ Associate Professor, Department of Animal Medicine and Surgery, Faculty of Veterinary Medicine, Complutense University of Madrid



### Dr. Casas García, Diego L.

- ♦ University Specialist in Endoscopy and Minimally Invasive Small Animal Surgery (SpecEaMIS)
- ♦ Degree in Medicine from the Autonomous University of Gran Canaria (Spain)
- ♦ Currently Studying a PhD at the University of Extremadura (Spain)
- ♦ Certificate in Internal Medicine (GPCertSAM) by the European School of Veterinary Postgraduate Studies (ESVPS)
- ♦ Certified by the University of Extremadura and the Jesús Usón Minimally Invasive Surgery Center (CCMIJU)
- ♦ Co-director of the Canary Islands Minimally Invasive Veterinary Center - CVMIC in Las Palmas de Gran Canaria (Spain). Head of Endoscopy and MIS services at CVMIC

## Professors

### Dr. Arenillas Baquero, Mario

- ♦ Bachelor's Degree in Veterinary Medicine from the Complutense University of Madrid. He obtained the Diploma of Advanced Studies in 2011 and will defend his thesis for the achievement of the Doctorate in Veterinary Medicine in 2020
- ♦ Associate Professor in the Clinical Rotation of the subject "Anesthesiology" in the Veterinary Degree of the Faculty of Veterinary Medicine of the Complutense University of Madrid (UCM). As from March 2020
- ♦ Teaches in different undergraduate and postgraduate courses related to veterinary anesthesiology, both at the university and clinical practice levels
- ♦ Veterinary Anesthesiology at the European College of Veterinary Anaesthesia and Analgesia at UCM
- ♦ Carries out teaching duties at the University and undertakes clinical and research work in anesthesia, both at the University as well as in the clinical setting
- ♦ He has been the designated veterinarian at the animal facility of the University Hospital in Getafe

### Dr. Carrillo Sánchez, Juana Dolores

- ♦ Specialist in Endoscopy and Minimally Invasive Surgery in Small Animals
- ♦ Degree in Veterinary Medicine from the University of Murcia.
- ♦ Doctor from the University of Murcia
- ♦ General Practitioner Certificate in Small Animal Surgery
- ♦ Accreditation in the specialty of soft tissue surgery

### Dr. Fuertes Recuero, Manuel

- ♦ Veterinarian, Valmeda Veterinary Clinic
- ♦ Degree in Veterinary Medicine, Complutense University Madrid

- ♦ Practical Training Scholarship. Advanced internship in small animal surgery, Complutense Clinical Veterinary Hospital, Madrid. Substitution
- ♦ Veterinarian, Los Madroños Veterinary Clinic
- ♦ Veterinarian at Small Animal Clinic-Hospital, Companion Care Sprowston Vets4pets, Norwich, England

### Dr. Gutiérrez del Sol, Jorge

- ♦ Founding partner of the company Vetmi, Minimally Invasive Veterinary Medicine
- ♦ Currently Studying a PhD at the University of Extremadura.
- ♦ Degree in Veterinary Medicine from the University of Extremadura.
- ♦ Master's Degree in Meat Science and Technology from the University of Extremadura
- ♦ Master's Degree in Clinical Veterinary Etiology from the University of Zaragoza
- ♦ Currently studying a Postgraduate Degree in Veterinary Surgery at Barcelona University
- ♦ Lecturer for the veterinary training company, Vetability, in its Advanced Laparoscopy and Thoracoscopy courses

### Dr. Lizasoain Sanz, Guillermo

- ♦ Veterinarian at the Veterinary Hospital La Moraleja, Peñagrande group
- ♦ Degree in Veterinary Medicine, Complutense University Madrid
- ♦ Member of the Official College of Veterinarians of Madrid
- ♦ Mentor in the Official Mentoring Program of the Veterinary Degree Complutense

University of Madrid

**Dr. Martínez Gomáriz, Francisco**

- ♦ University Specialist in Endoscopy and Minimally Invasive Small Animal Surgery (SpecEaMIS)
- ♦ PhD in Veterinary Medicine from the University of Murcia
- ♦ Degree in Veterinary Medicine from the University of Murcia
- ♦ Postgraduate Diploma in Surgery and Anaesthesia of Small Animals by the Autonomous University of Barcelona
- ♦ Associate Professor, Department of Anatomy and Embriology of the Faculty of Veterinary Medicine, University of Murcia
- ♦ Founding Partner of the Bonafé Veterinary Clinic in La Alberca. Murcia
- ♦ Director of the Centro Murciano de Endoscopia Veterinaria-CMEV, in La Alberca, Murcia, since 2005
- ♦ Postgraduate Diploma in Small Animal Surgery and Anesthesia
- ♦ Professor. Associate Anatomy and Embryology. Faculty of Veterinary Sciences. University of Murcia.

**Dr. Pérez Duarte, Francisco Julián**

- ♦ Secretary of AVEPA's Endoscopy Working Group (EWG)
- ♦ Founding member of the Iberian Minimally Invasive Society MINIMAL
- ♦ Researcher at the laparoscopy unit of the Jesús Usón Minimally Invasive Surgery Center (CCMIJU)
- ♦ Collaborator teacher, UEX Department of Surgery





**Dr. Palacios Quirós, Nadia**

- ◆ Founder of the Veterinary Endoscopy Mobile Service
- ◆ Degree in Veterinary Medicine from the Complutense University of Madrid
- ◆ Resident, Small Animals, Veterinary Hospital of the UCM (HV-UCM)
- ◆ Founder of the Retamas Veterinary Center (Alcorcón-Madrid)
- ◆ Professor of theory and practice at the Faculty of Veterinary Medicine of the University Alfonso X El Sabio (UAX); teaches endoscopy in the area of Diagnostic Imaging
- ◆ She has completed residencies for specialization in digestive medicine, ultrasound and endoscopy at the HV-UCM

**Dr. Bobis Villagrà, Diego**

- ◆ Veterinarian in charge of Soft Tissue Surgery, Endoscopy and Minimally Invasive Surgery at La Salle Veterinary Center
- ◆ Doctor Cum Laude from the Department of Veterinary Medicine, Surgery and Anatomy of the University of León.
- ◆ Master's Degree in Veterinary Research and CTA University of León
- ◆ Master's Degree in Clinical Veterinary Practice in Hospitals Veterinary Hospital of the University of León
- ◆ Bachelor's Degree in Veterinary Medicine University of León
- ◆ Postgraduate in Soft Tissue Surgery, IVET Valencia
- ◆ Postgraduate in Surgery and Anaesthesia of Small Animals from the Autonomous University of Barcelona

# 04

## Structure and Content

The syllabus has been designed by leading experts in the field of laparoscopy who have extensive experience and recognized prestige in the profession, are backed by the volume of cases reviewed, studied, and diagnosed, and possess extensive knowledge of new technologies applied to veterinary medicine.



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*This Postgraduate Certificate in Introduction to Laparoscopy in Small Animals contains the most complete and up-to-date scientific program on the market”*



## Module 1. Basic Principles in a Laparoscopy

- 1.1. History of Minimally Invasive Surgery
  - 1.1.1. History of Laparoscopy and Thoracoscopy
  - 1.1.2. Advantages and Disadvantages
  - 1.1.3. New Perspectives
- 1.2. Laparoscopy Surgery Training
  - 1.2.1. Laparoscopy Training Program
  - 1.2.2. Skill Evaluation Systems
- 1.3. Laparoscopy Surgery Ergonomics
  - 1.3.1. Positioning of Surgical Equipment
  - 1.3.2. Surgeon's Body Posture
- 1.4. Laparoscopy Surgical Equipment Laparoscopy Tower
  - 1.4.1. Insufflation Gas
  - 1.4.2. Camera Source
  - 1.4.3. Light Source
- 1.5. Laparoscopy Surgical Instruments
  - 1.5.1. Trocars
  - 1.5.2. Dissection, Cutting and Aspiration Instruments
  - 1.5.3. Auxiliary Instruments
- 1.6. Energy Systems
  - 1.6.1. Physical principles |
  - 1.6.2. System Types. Monopolar, Bipolar, Sealent
- 1.7. Laparoscopic Suture
  - 1.7.1. Extracorporeal Suture
  - 1.7.2. Intracorporeal Suture
  - 1.7.3. New Systems and Suture Materials
- 1.8. Access to the Abdomen and Creation of the Pneumoperitoneum
  - 1.8.1. Access to the Abdomen
  - 1.8.2. Creation of the Pneumoperitoneum





- 1.9. Laparoscopy Surgical Complications
  - 1.9.1. Intraoperative Complications
  - 1.9.2. Immediate Postoperative Complications
  - 1.9.3. Conversion
- 1.10. Single Incision Laparoscopy and NOTES
  - 1.10.1. Basic Management and Ergonomics Principles
  - 1.10.2. Surgical Techniques of Single Incision Laparoscopy
  - 1.10.3. Surgical Techniques of NOTES



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*This training will allow you to advance  
in your career comfortably”*

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the actual conditions in a veterinarian's professional practice.



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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Veterinarians who follow this method not only manage to assimilate concepts, but also develop their mental capacity through exercises to evaluate real situations and knowledge application
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. The feeling that the effort invested is effective becomes a very important motivation for veterinarians, which translates into a greater interest in learning and an increase in the time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.



*Veterinarians will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology more than 65,000 veterinarians have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. Our teaching method is developed in a highly demanding environment, where the students have a high socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current and procedures of veterinary techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

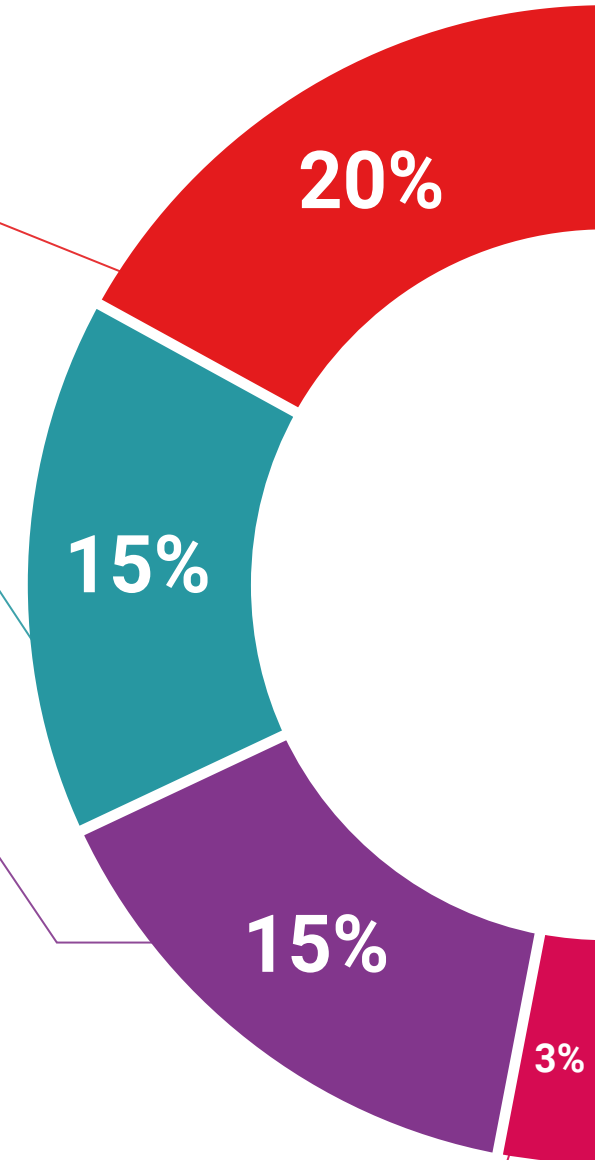
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

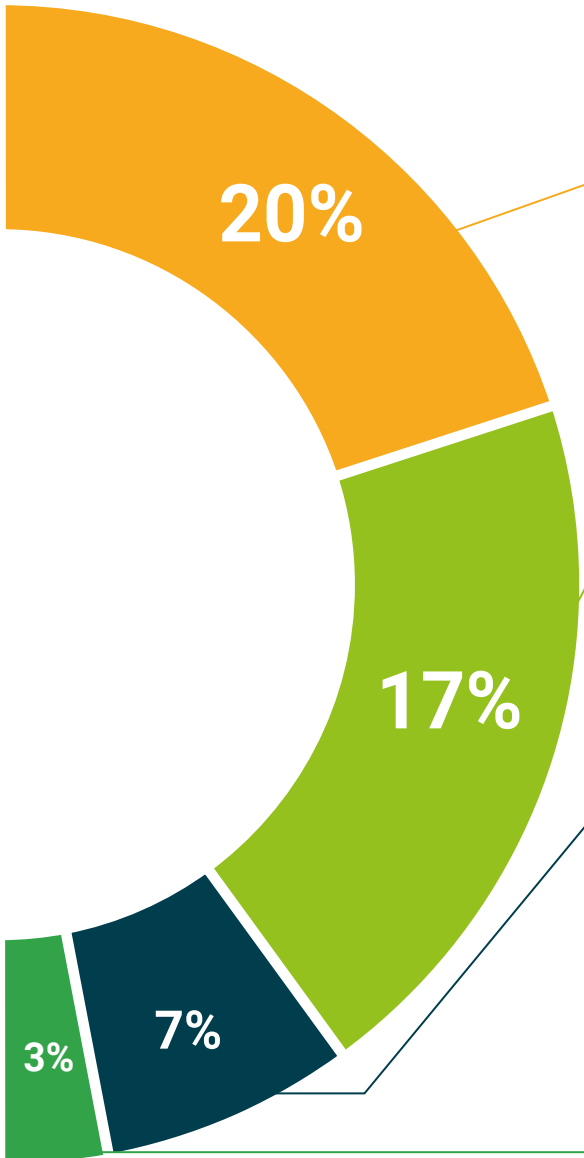


#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Introduction to Laparoscopy in Small Animals guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in Introduction to Laparoscopy in Small Animals** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Introduction to Laparoscopy in Small Animals**

Official N° of Hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development languages  
classroom



## Postgraduate Certificate Introduction to Laparoscopy in Small Animals

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